

Name _____

Ch 7 & 8 Test Study Guide CP Living

What is electronegativity?

What happens to electronegativity from left to right across the periodic table? Explain why.

What is the trend in electronegativity in each group from top to bottom? Why?

How does electronegativity determine the types of bonds between atoms?

For the following compounds:

- A. Check off if the compounds contain ionic or covalent bonds.
- B. If the bonds are covalent, check off if they are polar or nonpolar.
- C. If the bonds are polar, indicate the direction of the dipole over two of the atoms.

	A		B		C
Compound	Ionic	Covalent	Nonpolar	Polar	Direction of Dipole
Ex: H ₂ O		✓		✓	O-H
LiCl					
OF ₂					
H ₂					

In 3D shapes of molecules, how do the electron domains arrange themselves?

Make a table listing the various molecule types and geometry types according to VSEPR theory.

Using drawings, explain why the AB₃ molecule is trigonal planar, but the AB₃E molecule is trigonal pyramidal.

Draw the Lewis structures for the following compounds, give their VSEPR geometry, and give their polarity.

Compound	Structure	Geometry	Polarity
NF ₃			
OI ₂			
CH ₄			
SiO ₂			

Explain how a molecule with polar bonds, can be non polar. Which molecule(s) above meet this criteria?

What are intermolecular forces?

Define the two types of intermolecular forces we talked about.

Explain how the intermolecular forces of water give it so many unique properties.

In the charged wand demonstration, explain why did the hexane not attract to the wand but the water did?